



## APPRAISAL BULLETIN

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*Real Estate Economists, Appraisers and Counselors*

### CONSTRUCTION COSTS OF A COLONIAL STYLE SAVINGS AND LOAN OFFICE BUILDING



CASS FEDERAL SAVINGS AND LOAN ASSOCIATION

Total Building Cost: \$133,450

\$37.77 per sq. ft. for ground area of 3,533 sq. ft.

\$ 1.31 per cu. ft. for volume of 101,850 cu. ft.

**I**N the exterior style of the building pictured above, a sharp deviation from today's consistent trend by financial institutions toward modern architectural design is readily discernible. The structure, completed early this year, is the new home of one of the prominent savings and loan associations in the city of St. Louis. The site is on a main thoroughfare in one of the older sections of the city. In this case, the all-important parking space requirements have been more than adequately satisfied.

The Williamsburg Colonial design produces the reflection of conservatism wanted by the officials of the institution. The basement and ground level floor plans, shown on page 213, evidence the high functional desirability of the interior arrangement for the intended use.

In contrast to the conservative exterior appearance of the building, interior appointments and the mechanical equipment are strictly modern. With the exception of the utility room and the vault, the entire basement is finished and available for use as work space. Convenient rest rooms are provided in the basement in addition to the first floor lavatories.

The year-round heating and air-conditioning system consists of three 5-ton heat pumps. These heat pump units operate on the same principle as a refrigerator. In cold weather, the refrigerant is pumped through an outside coil. Since there is always heat in the air, even when the temperature is below freezing, the units extract this heat, transfer it to an indoor coil and then circulate it through ducts to all parts of the building. During the summer, this process is reversed. The refrigerant flows first through the indoor coil to extract heat from the air in the building and then dissipates it through the outdoor coil. The three 5-ton-capacity heat pump units, built by Westinghouse Corporation, are installed in the basement as shown on the basement floor plan on the bottom of page 213. In cost comparison with other systems, certain construction savings, such as the elimination of chimneys and flues, should be credited to the heat pump system installation costs.

Manually switched, electric ventilation fans are provided for the "in-between" seasons. The ultramodern electric lighting system furnishes 75 foot-candles at desk level. Complete electric food preparation facilities are provided in the employees' basement recreation room. Electric hot water heating equipment and a power-operated incinerator complete the list of electric features that make the building unique in its complete electrification. Also included in the electrical contract is a floor duct system for installation of all telephone lines and outlets.

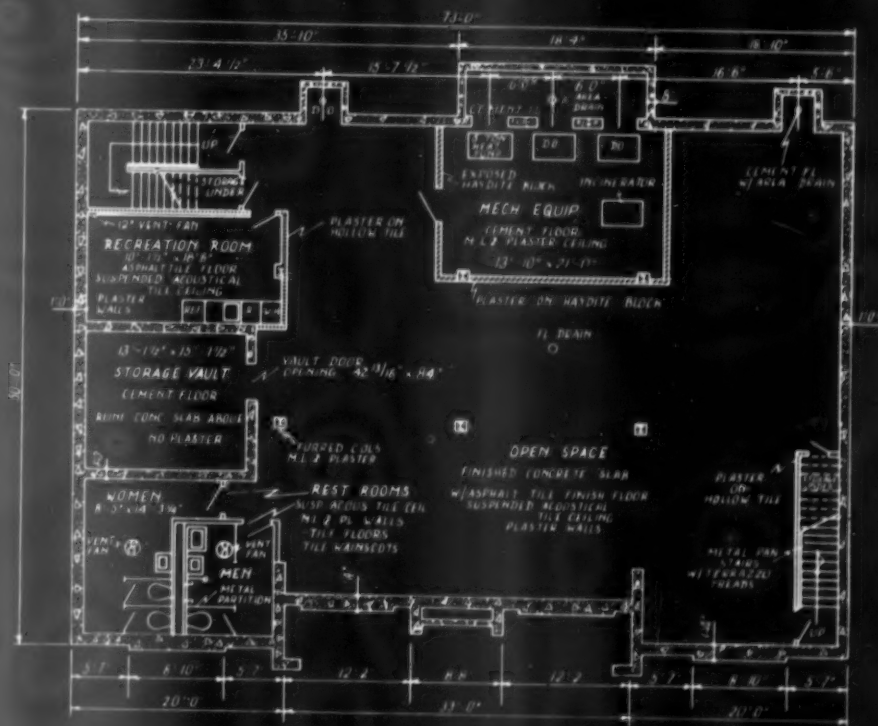
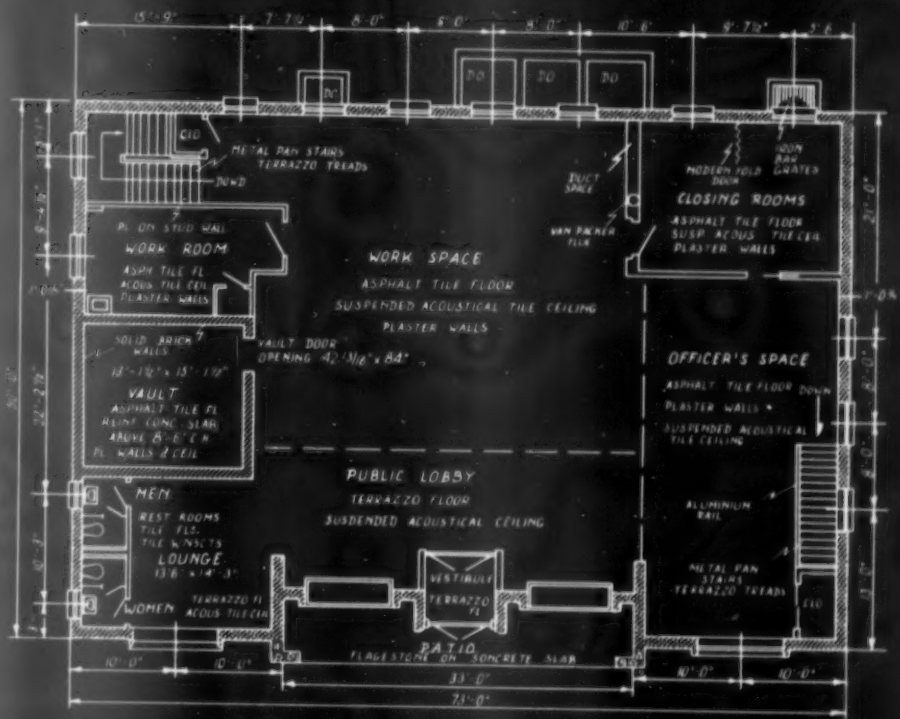
A further innovation has been provided in the building under study by the installation of Schulmerich "Carillon Bells." Operated automatically by a special roll-player using hand-cut rolls, the "Carillon Bells" can be used to sound important hours of the day or other occasions with simple tunes or signals. With this type of audibility, it might be stated that this building can be heard in the neighborhood, as well as seen. These bells are designed to suit individual function and as a result, the cost range is extremely wide.

#### BUILDING COST DATA

The building, occupied on January 1, 1957, shortly before completion, was erected at a cost of \$133,450, exclusive of several items listed below. This figure works out to a unit cost of \$37.77 per square foot for the 3,533 square feet of ground area occupied by the structure. For the volume of 101,850 cubic feet, the unit cost is \$1.31 per cubic foot. These figures include architect's fees with full supervision, as well as contractor's overhead and profit.

Not included in this study are certain items that should be contained in a construction cost appraisal. For example, paving, exterior lighting, and landscaping costs are dependent on the area of the site and the portion thereof allotted to parking use, as well as the quality of such land improvements. Then, too, certain items are excluded because they are optional and have wide price ranges. In the subject case, cost items contracted for separately and excluded from the \$133,450 cost figure given previously are as follows:

"Carillon Bells"	Landscaping
Vault doors	Parking area - lighting
Venetian blinds or shades	Parking area - paving
Electric range	Parking area - retaining walls
Electric refrigerator	Parking area - driveway



An itemized breakdown of construction costs is given in the box to the right. Contractor's profit is contained in most of the cost items shown.

### GENERAL SPECIFICATIONS

Space does not permit an account of the detailed specifications for this building. Features of the year-round air-conditioning system and electrical equipment have been previously outlined. A great many details appear on the accompanying floor plans of the basement and first floor levels. Other pertinent general descriptive data are summarized below.

**GENERAL CONDITIONS:** Unless otherwise specified, the general contractor shall provide, pay and care for all materials necessary for completion of the building. He shall also construct and maintain temporary buildings and furnish all labor, water, tools, equipment, permits, light and power, telephone service, and liability insurance necessary to finish the project. All materials used shall be sound, new and of good quality. All work shall be done in a skillful and workmanlike manner. All work shall be guaranteed for a period of 1 year from the date of acceptance by the architect.

**EXCAVATING, GRADING & BACK-FILLING:** Included in this contract shall be the demolition and removal of a small service station building. After clearing the site, this contractor shall excavate for basement, wall and column footings, do all filling and back-filling, and grade and place the excavated earth to form the finished grade levels of the building.

**STONE WORK:** Construct flagstone patio of 2" limestone at front entrance. Furnish and place granite stone wall below 4 front window openings. Furnish and erect Gray Bedford Indiana Limestone trim around front entrance vestibule, front windows. Furnish and build cut stone buttresses to form front court.

### SAVINGS AND LOAN OFFICE BUILDING BREAKDOWN OF COSTS

Excavating, grading, back-filling . . . \$	2,200
Stone work . . . . .	3,038
Reinforced concrete . . . . .	16,584
Granitoid . . . . .	5,165
Brick work . . . . .	10,312
Electric work . . . . .	9,515
Millwork & cupola . . . . .	3,600
Kitchen cabinets . . . . .	236
Finish hardware . . . . .	300
Heat & air-conditioning . . . . .	17,554
Steel joists & corruform . . . . .	4,050
Structural iron . . . . .	5,544
Steel erection . . . . .	2,409
Modernfold doors . . . . .	447
Marble . . . . .	624
Tile . . . . .	1,353
Terrazzo . . . . .	734
Painting . . . . .	1,369
Plastering . . . . .	3,927
Plumbing . . . . .	6,380
Roofing . . . . .	798
Glass . . . . .	513
Aluminum entrance & windows . . . .	3,059
Sheet metal . . . . .	1,227
Clock . . . . .	1,205
Calking . . . . .	50
Waterproofing . . . . .	1,508
Asphalt tile . . . . .	1,067
Incinerator . . . . .	1,512
Insulation . . . . .	216
Acoustical tile . . . . .	4,066
Aluminum hand rails . . . . .	364
Miscellaneous extra items . . . . .	2,776
Permits, insurance, sundries . . . .	2,672
Architect's fees plus General Contractor's charge for supervision, labor and materials furnished . . .	17,076
<b>Total . . . . .</b>	<b>\$133,450</b>

**REINFORCED CONCRETE, GRANITOID, AND STEEL JOISTS AND CORRUFORM:** Under these contracts, the following work is covered: forming, reinforcing and installing all concrete for fill under patio, tile and terrazzo floors, including insertion of all pipes and sleeves for other trades; forming, reinforcing, and pouring all footing and foundation walls; pouring all concrete slabs on the ground and all outside walks with monolithic cement finish course on all; basement slab to be 4" over 4" gravel fill and to be reinforced with 6-6-10-10 mesh with 2-ply membrane waterproofing on fill; furnish all steel joists and 27-gauge corruform for first floor slab and steel joists for first floor ceiling; all materials and workmanship to be subject to rigid standards of quality. All reinforcing steel and metal accessories to be a part of this contract.

**BRICK WORK:** Furnish all materials as follows: face brick at \$52.50 per thousand, Haydite backing blocks, hollow tile, glass block, ventilators, lintels and mortar. Build all brick walls with every sixth course a bonding course and with all exterior wall face joints to be tooled.

**ELECTRICAL WORK:** Previously described. All electrical work to be by skilled and qualified electricians under proper supervision and all materials to be as approved by the Underwriters Laboratories or local governing authorities.

**MILLWORK, CUPOLA, KITCHEN CABINETS, HARDWARE:** Includes all millwork for cupola, interior doors, etc. Installation of same, as well as the furnishing and erection of all rough lumber, rough hardware, blocks, strips, grounds, door bucks and frames, shelving, as well as roof structure, louvres, and all wood trim are the responsibility of the general contractor and are included in his charges for labor and materials furnished.

**HEATING AND AIR-CONDITIONING:** Previously described.

**STRUCTURAL IRON, STEEL ERECTION:** Furnishing and erection of all steel beams, angles, lintels, iron gratings, metal stairs and ladder. All to be shop coat painted, conforming to the current issue of A.S.T.M. and designed, fabricated and erected to conform to standard A.I.S.C. specifications.

**MARBLE WORK:** Furnish and install marble window stools, thresholds, walls, and base of front vestibule.

**TILE WORK:** Furnish and install standard grade ceramic tile floors and wainscots together with tile accessories in each toilet room.

**TERRAZZO:** Furnish and install brass strips and terrazzo topping of  $\frac{1}{2}$ " minimum on all stair treads, first floor lobby and lounge areas.

**PAINTING:** This contract includes the labor and materials to paint all exterior woodwork with 3 coats of lead and oil; to finish all interior woodwork with 1 coat of stain, 1 coat of shellac, and 2 coats of semilustre varnish; to paint all plastered walls and ceiling surfaces of entire first floor and basement with primer, sealer and finish coats; to cover gutters and downspouts with 2 coats of linseed oil. All materials to be of highest quality and subject to prior approval of the architect.

**LATHING AND PLASTERING:** This contractor shall provide labor and mate-



rials for all furring, lathing and plastering work. All pipe chases, ducts, enclosures for pipes, and backs for electrical and medicine cabinets to be furred with metal lath. Milcor metal trim and corner beads to be used. As noted on floor plans, equipment room and front vestibule ceilings shall receive metal lath and plaster. The plastering shall be 2-coat work on masonry and 3-coat over all lath. This contractor shall further provide a Portland Cement scratch coat as a base for all areas indicated to receive tile wainscots. All work to conform to local city code.

**PLUMBING:** This contract entails the provision and installation of all soil, waste and vent lines; water piping, plumbing fixtures as shown on the floor plans, necessary plumbing permits, etc. All materials and workmanship shall be of best quality and subject to prior approval of the architect.

**ROOFING:** Asphalt shingles shall be Genasco 290 lb., 3-in-1 type laid over 15 lb. felt roofing paper as per directions furnished by the manufacturer. A 10-year bond is required on the roof installation.

**GLASS AND GLAZING:** The work to be done under this heading shall consist of furnishing glass and glazing all windows and doors. All glass to be set in a bed of calking compound and to be 1/4" plate glass where specified. This work is confined to openings in the front wall of the building only, as all windows on the side and rear wall are glass block by the brick contractor.

**ALUMINUM ENTRANCE AND WINDOWS:** Four front windows to be Alcoa #63-57-5 section. Also furnish and install Kawneer Aluminum flush doors and frames at rear of building and mechanical equipment room, including all hardware and locks. At the front entrance, install narrow stile aluminum entrance doors, frames, transoms, side lights, trim molding and other related items, all as manufactured by the Kawneer Company. All exposed materials specified in this section shall be polished to a mirror-like surface.

**SHEET METAL:** This contract includes all the sheet metal work of every description about the building; in general, gutters, downspouts, flashing and counter flashing. Main roof to have flat back molded gutters with 3" by 4" downspouts connected to the sewer. All sheet metal work to be of 16-oz. copper.

**CUPOLA CLOCK:** Furnish and erect 3 Vance outdoor tower clocks with 3 separate motors. Electrical connections by others. Faces, 30" diameters.

**CALKING AND INSULATION:** Provide all labor and materials to calk all window and door openings. Furnish material and cover entire first floor ceiling with 4" of rock wool.

**WATERPROOFING:** Western's Parge Coat Dampproofing applied to exterior foundation walls under 50 lbs. pressure. Ironite cove to be installed at the junction of all floors and exterior walls, columns, etc.

**ASPHALT TILE:** Armstrong Cork Company or equal; furnish and install 1/8", 9" by 9" tile and rubber cove base, 4" high and 1/8" thick.

**ACOUSTICAL TILE:** Suspended ceilings on both levels to receive Acoustone "F," 12" by 24" tile with square edges.